

**REMARKS**

In the Summary of the Final Office Action, the Examiner noted that claims 1-15 are pending and that claims 1-15 are rejected. Applicant responds to the various paragraphs in the Office Action as set forth below.

Paragraph 1

No response is required to the acknowledgement of receipt of the previous Response.

Paragraph 2

No response is required to the acknowledgement of receipt and approval of the drawings.

Paragraph 3

No response is required to the recitation of 35 U.S.C. §102.(b)

Paragraph 4

The Examiner has rejected claims 1-6, 8, 9, and 11-15 as being anticipated by Buechle (US 3,295,640), a reference not mentioned in the initial Office Action. The initial Office action instead relied on the DuBois patent (US Patent No. 2,516,966). By now switching reliance to Buechle, the Examiner acknowledges that the prior rejection based on DuBois was not well founded (at least as it applies to the claims as amended in that Response). As will be shown below, the present claims are also clearly distinguishable from Buechle for the same reasons that the DuBois reference is not controlling.

Applicant notes that the Buechle patent relates to a brake disk having an annular element (ring member) 1 which is mounted so as to be axially shiftable (movable) onto a disk-shaped support 9. In operation of the braking system of Buechle the ring member 1 shifts to the left (column 2 lines 50-67 and Fig. 5) in order to engage the opposing plates.

Even though the general shape of the ring member 1 [including cooling channels 2 and 3] may appear to be vaguely similar to the disk according to the claimed invention, it should be noted that the protruding elements 4 and 5 of Buechle, which are arranged between the cooling

channels, are the actual brake linings – the friction wearing elements (shoes or pads, see Column 2, lines 67-72). The protruding elements 4 and 5 of Buechle correspond to the brake pads of Applicant's invention, rather than to the metallic disk portion.

Thus the teaching of Buechle is the same as that of DuBois where the channeled element is the wearing material, rather than the permanent material. There is no teaching in either Buechle or DuBois which shows alternating protruding and indented segments on the non-wearing surface. This is a significant and relevant distinction, since the permanent metallic surfaces of Applicant's disk have much greater heat retention than the wearing materials of the pads, as well as higher mass. Therefore, cooling and weight reduction have a much greater impact in Applicant's invention than in the systems shown and described in Buechle and DuBois.

In addition, Applicant's leading edge gripping aspect is not present in the prior art because only one component in the Buechle/Du Bois systems even has a leading edge. In Applicant's structure, the discrete brake pads also have an effective leading edge (the edge of the pad) which engages each approaching leading edge on the rotating disk. Nothing of this nature is taught or suggested in Buechle or DuBois.

In order to provide even greater emphasis on the differences between Applicant's invention and the prior art, further amendment has been made to independent claims 1 and 8. These amendments, shown above, clarify the structures claimed by specifically stating that the pads are the friction elements (wearing elements) while the protruding segments are adapted to engage such. These amendments even more clearly distinguish Applicant's claims from the prior art.

The rejection of claim 2, in particular, is insupportable since that claim specifically recites "a leading edge for gripping the brake pad upon engagement". Buechle and DuBois teach that the leading edges are part of the brake pads (wearing elements) and therefore such are incapable of engaging the brake pads.

The rejections of claims 5 and 11 are similarly improper in that Buechle teaches nothing resembling scalloped or irregularly shaped inner and outer rims, and shows, at most, minor curvature of the edge surfaces. This is not the sort of shape modification which provides any meaningful capacity to "provide increased surface area for heat dissipation" as required by the

claim language. In fact, the cited curvature shown in Fig. 2 of Buechle would actually provide less surface area than a squared corner.

Accordingly, the rejection of Applicant's claims, all of the remainder of which are dependent on either of claims 1 or 8, cannot be maintained. Reconsideration of these claims is accordingly requested and proper allowance is sought.

Paragraph 5

No response is required to the recitation of statutory basis.

Paragraph 6

The Examiner rejects claims 7 and 10 under 35 U.S.C. §103 as being unpatentable over Buechle. The Examiner indicates that the relative width limitations set forth in these claims is made obvious by the teachings of Buechle. Applicant notes that, not only is the subject matter entirely different (see Paragraph 4 above), but nothing in the teachings of Buechle even shows anything near the range claimed. The interstices shown in that reference are much more nearly equal in size with the protruding segments and fall well out of the range claimed by Applicant.

For this reason also, the rejection of claims 7 and 10 is inappropriate and should be withdrawn.

Paragraph 7

The Examiner has made the rejections stated above final, despite introducing previously uncited art as the sole basis for rejection. It is asserted that such designation is improper and inappropriate. Nonetheless, Applicant has responded with this Request for Continuing Examination, rather than further delaying matters by seeking protection via petition.

Paragraph 8

No response is required to the reference to methods of communication.

Serial No.: 10/667,122  
Brake Disk for Vehicles  
Greppi, Bruno

Ex. Williams, Thomas J.  
Art Unit: 7151  
Att. Ref. 60681.300101

Conclusion

Having responded to all of the paragraphs of the Office Action and having amended the claims accordingly, Applicant respectfully submits that the Application is now in condition for allowance. Applicant therefore respectfully requests that a Notice of Allowance be forthcoming at the Examiner's earliest opportunity. Should the Examiner have any questions or comments with regard to this amendment, a telephonic conference at the number set forth below is respectfully requested.

Respectfully submitted,

Date: 24 March 2005

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24 March 2005  
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